

WHAT IS CLAIMED IS:

1. An ejector mechanism for a circuit board and back plane operable to provide
5 resiliently biased engagement between a first part of an electrical connector and a
mutually engaging second part of said electrical connector, said first and second parts
of said electrical connector providing electrical connection for a plurality of electrical
channels between said circuit board on which said first part is mounted and said back
plane on which said second part is mounted, said ejector mechanism comprising
10 an engaging projection and
a lever arm pivotally mounted on one of said circuit board and said back plane
and configured to engage said engaging projection forming part of the other of said
circuit board and said back plane, said lever arm being operable to apply an engaging
force to said circuit board with respect to said back plane, when moved from a first
15 position to a second position, which engaging force causes said first and second parts
of the connector to engage, wherein said engagement of said lever arm and said
engaging projection is provided by a flexible coupling which allows relative
movement of said circuit board away from said back plane and a biasing force which
biases said circuit board towards said back plane.
20
2. An ejector mechanism as claimed in Claim 1, wherein said flexible coupling is
provided by said engaging projection which is formed from a resiliently deformable
material, said material providing said relative movement and said biasing force of said
circuit board towards said back plane.
25
3. An ejector mechanism as claimed in Claim 1, wherein said flexible coupling is
provided by said engaging projection which is formed by a rigid member slidably
mounted on said back plane and a biasing member connected to said back plane and
said engaging projection, said slidable mounting providing said relative movement and
30 said biasing member providing said biasing force for biasing said circuit board towards
said back plane.

4. An ejector mechanism as claimed in Claim 3, wherein said biasing member is a spring or a resiliently deformable member.

5. An ejector mechanism as claimed in Claim 1, wherein said flexible coupling is provided by a slidable mounting of said pivotably mounted lever arm on said circuit board and a biasing member coupled to said pivotable mounting and said circuit board, said slidable mounting providing said relative movement between said lever arm and said engaging projection, said biasing member providing said biasing force for biasing said circuit board towards said back plane.

6. A circuit board and back plane comprising a first part of an electrical connector and a mutually engaging second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels between said circuit board on which said first part is mounted and said back plane on which said second part is mounted, and

an ejector mechanism having an engaging projection and

a lever arm pivotally mounted on one of said circuit board and said back plane and configured to engage said engaging projection forming part of the other of said circuit board and said back plane, said lever arm being operable to apply an engaging force to said circuit board with respect to said system back plane, when moved from a first position to a second position, which engaging force causes said first and second parts of the connector to engage, wherein said engagement of said lever arm and said engaging projection is provided by a flexible coupling which allows relative movement of said circuit board away from said back plane and a biasing force which biases said circuit board towards said back plane.

7. A circuit board comprising

a first part of an electrical connector arranged to mutually engage a second part of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels for said circuit board,

a lever arm pivotally mounted on said circuit board and configured to engage an engaging projection, said lever arm being operable to apply an engaging force to said circuit board by engagement with said engaging projection, when moved from a first position to a second position, which engaging force causes said first part of said electrical connector to engage with said second part of the connector, wherein said lever arm is slidably mounted on said circuit board and a biasing member is coupled to said pivotable mounting and said circuit board, said slidable mounting providing said relative movement between said lever arm with respect to said engaging projection, said biasing member providing said biasing force against said slideable movement.

8. A system chassis or circuit board back plane arranged to receive at least one circuit board, said system chassis or circuit board back plane comprising

at least one second part of an electrical connector, mounted on said back plane and engageable with a first part of said electrical connector mounted on said circuit board, and

an engaging projection, engageable with a lever arm formed on said circuit board, wherein said engaging projection provides a flexible coupling which allows relative movement of said circuit board away from said back plane and a biasing force which biases said circuit board towards said back plane.

9. A back plane as claimed in Claim 8, wherein said engaging projection is formed from a resiliently deformable material, said material providing said relative movement and said biasing force of said circuit board towards said back plane.

10. A back plane as claimed in Claim 8, wherein said engaging projection is formed by a rigid member slidably mounted on said back plane and a biasing member connected to said back plane and said engaging projection, said slidable mounting providing said relative movement and said biasing member providing said biasing force for biasing said circuit board towards said back plane.

11. A back plane as claimed in Claim 10, wherein said biasing member is a spring or a resiliently deformable member.

12. A system chassis or circuit board back plane arranged to receive at least one circuit board, said system chassis or circuit board back plane comprising

at least one second part of an electrical connector, mounted on said back plane
5 and positioned and arranged to mutually engage a first part of said electrical connector mounted on said circuit board

a lever arm pivotally mounted on said back plane and configured to engage an engaging projection on said circuit board, said lever arm being operable to apply an engaging force to said circuit board by engagement with said engaging projection,
10 when moved from a first position to a second position, which engaging force causes said first part of said electrical connector to engage with said second part of the connector, wherein said lever arm is slidably mounted on said back plane and a biasing member is coupled to said pivotable mounting and said back plane, said slidable mounting providing said relative movement between said lever arm with
15 respect to said engaging projection, said biasing member providing said biasing force against said slideable movement.

13. A circuit board comprising

a first part of an electrical connector arranged to mutually engage a second part
20 of said electrical connector, said first and second parts of said electrical connector providing electrical connection for a plurality of electrical channels for said circuit board,

an engaging projection, positioned and arranged with respect to a lever arm of an ejector mechanism, wherein said engaging projection provides a flexible coupling
25 which allows relative movement of said circuit board in a direction opposite to that applied by said lever arm and a biasing force which biases said circuit board said direction applied by said lever arm.

14. A circuit board as claimed in Claim 13, wherein said engaging projection is
30 formed from a resiliently deformable material, said material providing said relative movement and said biasing force.

15. A circuit board as claimed in Claim 13, wherein said engaging projection is formed by a rigid member slidably mounted on said back plane and a biasing member connected to said circuit board and said engaging projection, said slidable mounting providing said relative movement and said biasing member providing said biasing
5 force.

16. A circuit board as claimed in Claim 15, wherein said biasing member is a spring or a resiliently deformable member.